

CLAIMS:

1. A pressure relief valve, comprising:
  - a valve insert having an opening at a first end and a pathway extending towards the opening from a second end of the valve insert;
  - an adjustment member received within in the opening of the valve insert, the valve insert and the adjustment member defining a chamber adjacent the pathway, the adjustment member including a throughway;
  - a bearing element within the chamber and adjacent the pathway, a width of the bearing element being larger than a width of the pathway;
  - a spring within the chamber, the spring under compression and in line with the bearing element; and
  - a cushioning member surrounding the valve insert, the cushioning member allowing the flow of pressurized fluid;
  - wherein the spring exerts a force on the bearing element such that the bearing element is biased against the pathway and forms a seal between the chamber and the pathway.
2. The pressure relief valve of claim 1, wherein the bearing element includes at least in part a sealing member, the sealing member adjacent to the pathway.
3. The pressure relief valve of claim 2, wherein the bearing element further comprises a pin adjacent to the sealing member.
4. The pressure relief valve of claim 3, wherein the pin is adjacent the spring.
5. The pressure relief valve of claim 4, wherein the pin further includes a receptacle that receives the sealing member.

6. The pressure relief valve of claim 1, wherein the valve insert is made of brass.
7. The pressure relief valve of claim 1, wherein the valve insert includes interior threads and the adjustment member includes exterior threads that engage with the interior threads of the valve insert.
8. The pressure relief valve of claim 1, wherein the spring is made of stainless steel.
9. The pressure relief valve of claim 1, wherein the cushioning member is made of rubber.
10. The pressure relief valve of claim 1, wherein the cushioning member further comprises a flange and a detent for engagement with a tire rim.
11. The pressure relief valve of claim 1, wherein the cushioning member further comprises an opening in fluid communication with the pathway.
12. The pressure relief valve of claim 1, wherein a width of the bearing element is smaller than a width of the chamber.
13. A pressurized tire, comprising:
  - a tire rim;
  - a pressure relief valve attached with and in fluid communication with the tire rim, the pressure relief valve including:
    - a valve insert having a first end, at least one opening, and a pathway extending towards the opening from a second end of the valve insert;
    - an adjustment member received within a cavity of the valve insert, the valve insert and the adjustment member defining a chamber adjacent the pathway, the adjustment member including a throughway;

a bearing element within the chamber and adjacent the pathway, the bearing element being larger than a width of the pathway;

a spring within the chamber, the spring under compression and in line with the bearing element; and

a cushioning member surrounding the valve insert, the cushioning member allowing the flow of pressurized fluid;

wherein the spring exerts a force on the bearing element such that the bearing element is biased against the pathway and forms a seal between the chamber and the pathway.

14. The pressurized tire of claim 13, wherein the cushioning member further comprises a flange that contacts an outer wall of the tire.

15. The pressurized tire of claim 13, wherein the cushioning member further comprises a detent that contacts an inner wall of the tire.

16. The pressurized tire of claim 13, wherein the cushioning member further comprises a flange that contacts an inner wall of the tire.

17. The pressurized tire of claim 13, wherein the cushioning member further comprises a detent that contacts an outer wall of the tire.

18. The pressurized tire of claim 13, wherein the valve insert includes interior threads and the adjustment member includes exterior threads that engage with the interior threads of the valve insert.

19. The pressurized tire of claim 13, wherein the valve insert is made of brass.

20. The pressurized tire of claim 13, wherein the spring is made of stainless steel.

22. The pressurized tire of claim 13, wherein the at least one opening further comprises four openings to allow the flow of fluid into the chamber.

23. A method for inserting a pressure relief valve into a tire comprising:  
inserting a pressure relief valve having a cushioning member into an opening of a tire rim;  
passing a detent of the cushioning member past an inner wall of the tire rim; and  
contacting a flange of the cushioning member with an outer wall of the tire rim.